



EFFECT OF SWISSBALL TRAINING ON PHYSICAL VARIABLES AMONG SCHOOL HANDBALL PLAYERS

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Abstract:

The purpose of the study was to find out the effect of swissball training on physical variables among school handball players. To achieve the purpose of the present study, forty handball players from various schools in Madurai district, Tamilnadu were selected as subjects at random and their ages ranged from 15 to 17 years. The subjects were divided into two equal groups of twenty handball players each. The study was formulated as a true random group design, consisting of a pre-test and post-test. The groups were assigned as swissball training and control group in an equivalent manner. The experimental group participated the training for a period of twelve weeks to find out the outcome of the training packages and the control group did not participated in any training programme. Paired 't' test was applied. In all cases 0.05 level of confidence was fixed to test hypotheses. The swissball training group had shown significant improvement in all the selected physical variables among handball players after undergoing swissball training group for a period of twelve weeks.

Key Words: Swissball Training, Physical Variables & Handball Players

Introduction:

Swissball is a huge inflatable ball prepared by tough elastic rubber, used for physical exercise and physiotherapy to enhance the neuro-development. Swissball is a ball, which is filled with air and it has a mobile platform which gives bouncy effect to the body by the body should align and maintain balance while performing an exercise. Exercises are mostly designed with a part or the whole body to make physically fit. Different researches have made on all aspects of exercise training and their significance and effect on the physical fitness. Any specific conditioning for a particular activity will bring a definite change in physical fitness level and having this in mind, a new set of exercises called swissball exercises has been developed especially to improve fitness. The origin of the "swiss ball" appellation is found in that ball exercises were first observed in Switzerland and not in Italy. This explains talk about why they are not commonly known as Italian balls (Clap, 2006).

Handball has become one of the popular sports in the world and is known for its speed. This game is also a part of Olympic Sport. The simple rules of game, minimal ground and equipment facilities and the speed of game itself along with the scope for players to exhibit their exclusive skills makes it a popular game among even the schools and educational institutions. Handball is not an expensive sport. They need small playing fields or gymnasiums may be used, there is a comparatively smaller number of players and a simple outfit will do (Kuldeep, 2002).

Methodology:

The purpose of the study was to find out the effect of swissball training on physical variables among school handball players. To achieve the purpose of the present study, forty handball players from various schools in Madurai district, Tamilnadu were selected as subjects at random and their ages ranged from 15 to 17 years. The subjects

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Table 1: Variables and Test Items

S.No	Variables	Tests
1	Speed	50 Metres Run
2	Agility	Shuttle Run
3	Explosive Power	Standing Broad Jump
4	Shoulder Strength	Pull Ups

Results:

Table 2: Significance of Mean Gains & Losses between Pre and Post Test Scores on Selected Variables of Swissball Training Group (SBTG)

S.No	Variables	Pre-Test Mean	Post-Test Mean	Mean difference	Std. Dev (±)	σ DM	't' Ratio
1	Speed	7.09	6.89	0.20	0.11	0.02	8.49*
2	Agility	11.48	10.92	0.55	0.10	0.02	24.58*
3	Explosive Strength	1.49	1.61	0.12	0.05	0.01	10.76*
4	Shoulder Strength	7.65	9.20	1.55	1.70	0.38	4.07*

* Significant at 0.05 level

Table 2 shows the obtained 't' ratios for pre and post test mean difference in the selected variable of speed (8.49), agility (24.58), explosive strength (10.76) and shoulder strength (4.07). The obtained ratios when compared with the table value of 2.09 of the degrees of freedom (1, 19) it was found to be statistically significant at 0.05 level of confidence. It was observed that the means gain and losses made from pre to post test were significantly improved in physical variables of speed (0.20, p<0.05), agility (0.55, p<0.05), explosive strength (0.12, p<0.05) and shoulder strength (1.55, p<0.05).

Figure 1: Shows the Pre and Post Mean Values of Experimental Group on Selected Variables

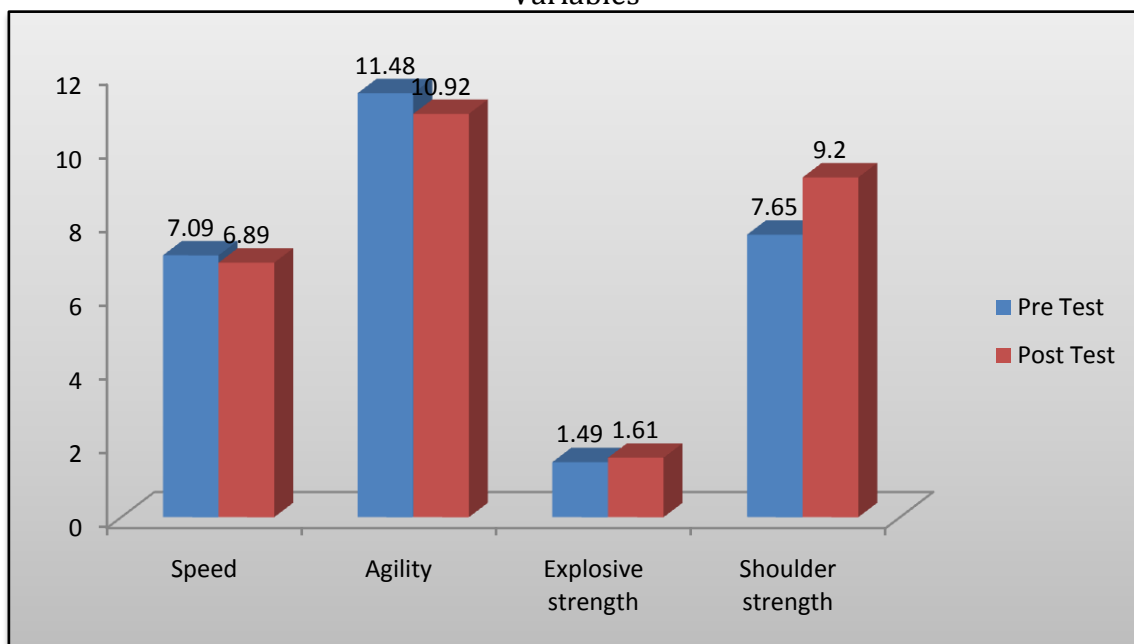


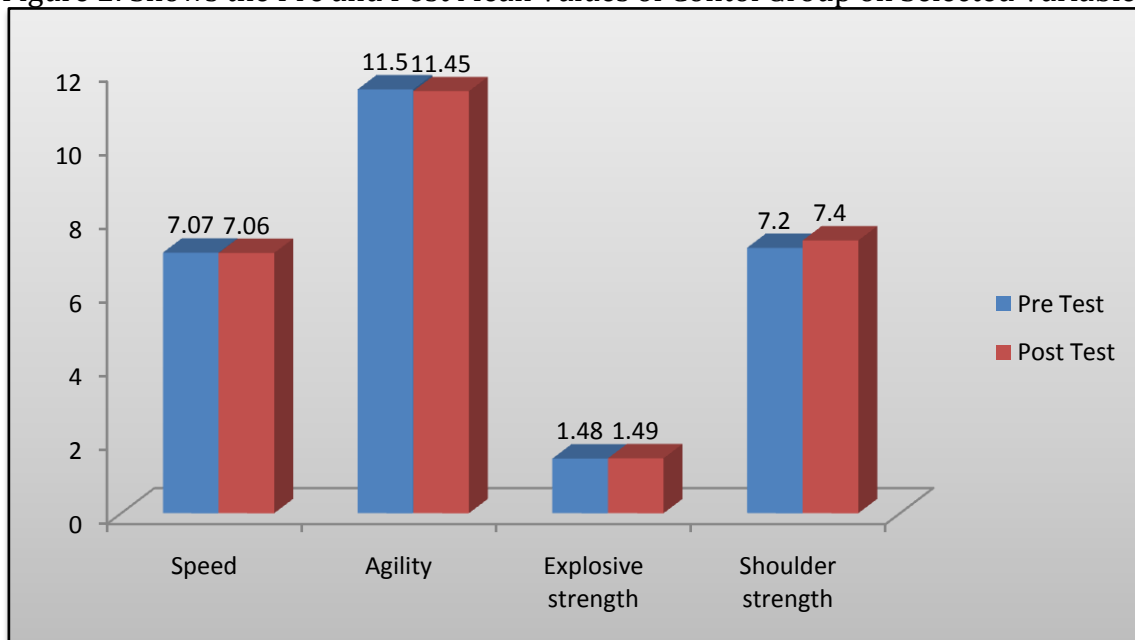
Table 3: Significance of Mean Gains & Losses between Pre and Post Test Scores on Selected Variables of Control Group (CG)

S.No	Variables	Pre-Test Mean	Post-Test Mean	Mean difference	Std. Dev (±)	σ DM	't' Ratio
1	Speed	7.07	7.06	0.01	0.09	0.02	0.56
2	Agility	11.50	11.45	0.05	0.15	0.03	0.89
3	Explosive Strength	1.48	1.49	0.01	0.06	0.01	0.57
4	Shoulder Strength	7.20	7.40	0.20	1.10	0.24	0.80

* Significant at 0.05 level

Table III shows the obtained 't' ratios for pre and post test mean difference in the selected variable of speed (0.56), agility (0.89), explosive strength (0.57) and shoulder strength (0.80). The obtained ratios when compared with the table value of 2.09 of the degrees of freedom (1, 19) it was found to be statistically insignificant at 0.05 level of confidence. It was observed that the means gain and losses made from pre to post test were not significantly improved in physical variables of speed (0.01, $p > 0.05$), agility (0.03, $p > 0.05$), explosive strength (0.01, $p > 0.05$) and shoulder strength (0.20, $p > 0.05$).

Figure 2: Shows the Pre and Post Mean Values of Control Group on Selected Variables



Conclusions:

From the analysis of the data, the following conclusion was drawn:

- ✓ The swissball training group had shown significant improvement in all the selected physical variables among handball players after undergoing swissball training group for a period of twelve weeks.

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